

EPITHELIAL TISSUE

Outer surface of body and luminal surfaces of cavities within the body are lined by one or more layers of cells

FUNCTIONAL
CLASSIFICATION

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graph TD; A[FUNCTIONAL CLASSIFICATION] --> B[SURFACE EPITHELIUM]; A --> C[GLANDULAR EPITHELIUM]; A --> D[NEUROEPITHELIUM]; A --> E[MYOEPITHELIUM];
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SURFACE
EPITHELIUM

GLANDULAR
EPITHELIUM

NEUROEPITHELIUM

MYOEPITHELIUM

SURFACE EPITHELIUM

CHARACTERISTICS

- The cellular sheet is made of either single layer or many layers of cells.
- Cells are adherent to each other by junctional complexes .
- Intercellular substance is reduced to minimum.
- Deep surface of the epithelium rests on a basement membrane.
- Basement membrane is made up of
 - basal lamina
 - reticular lamina

No blood vessels nor lymphatics are found in the epithelium, nourishment is provided by diffusion.

May undergo morphological and functional changes

It is derived from all three germ layers.

FUNCTIONS

- PROTECTION
- ABSORPTION
- SECRETION
- LUBRICATION
- EXCRETION
- SENSATION
- REPRODUCTION

Epithelium

SIMPLE
EPITHELIUM

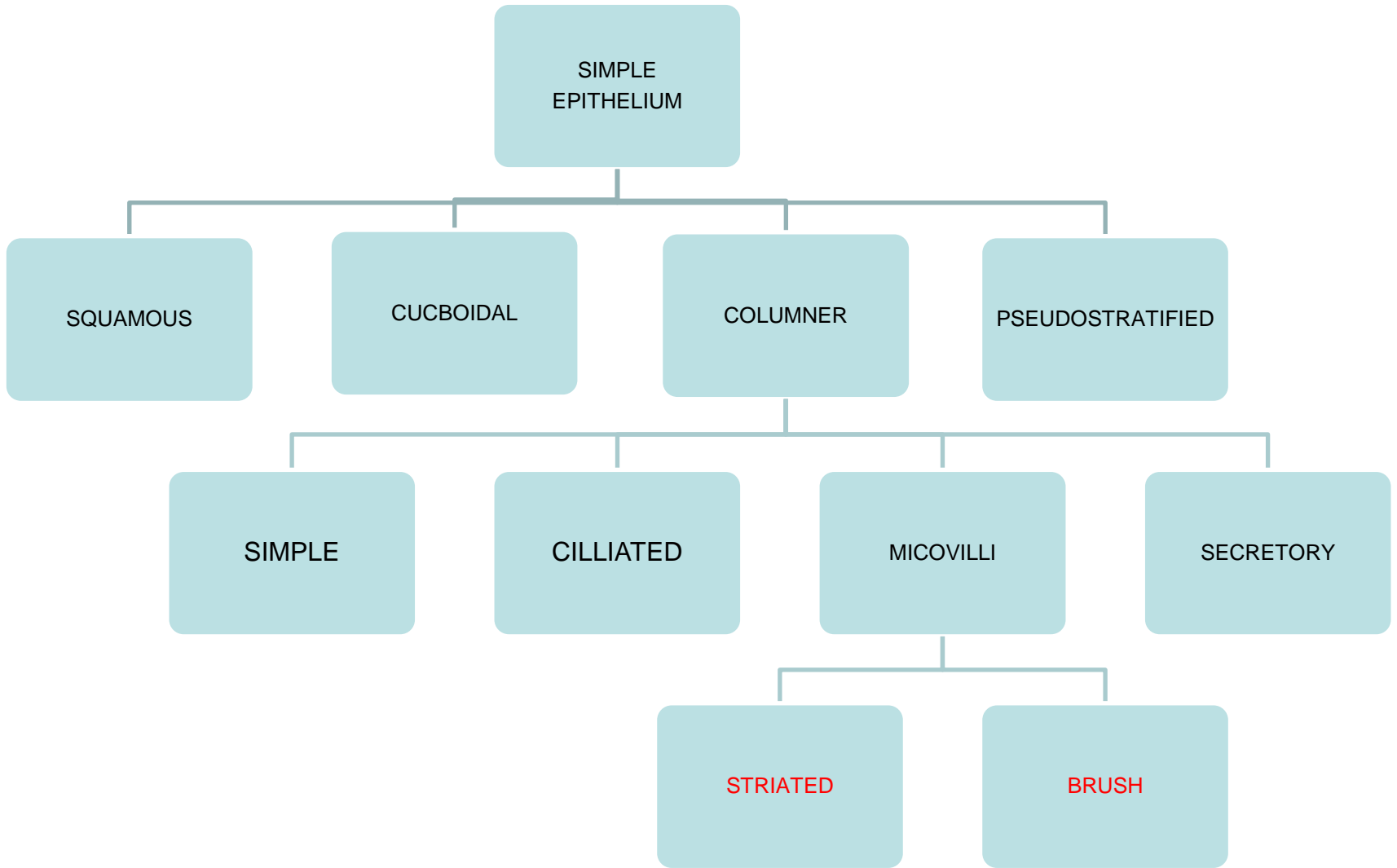
STRATIFIED
EPITHELIUM

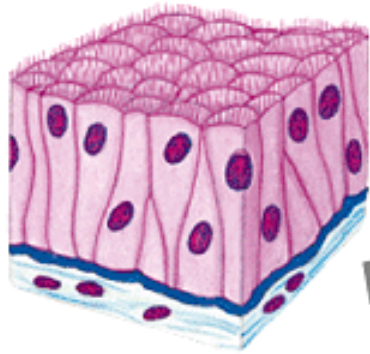
Simple epithelium



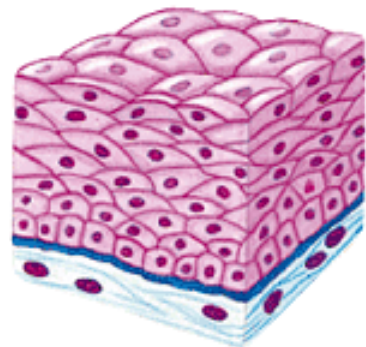
Stratified epithelium



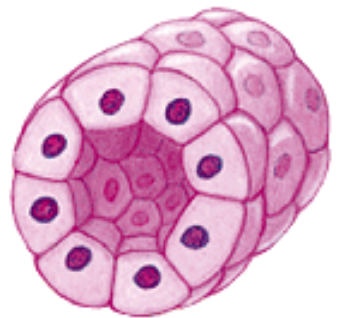




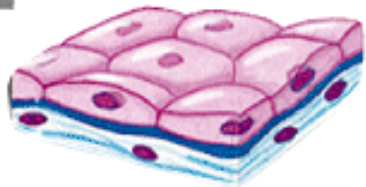
Pseudostratified ciliated columnar



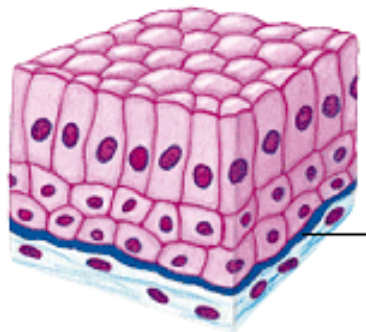
Stratified squamous



Simple cuboidal

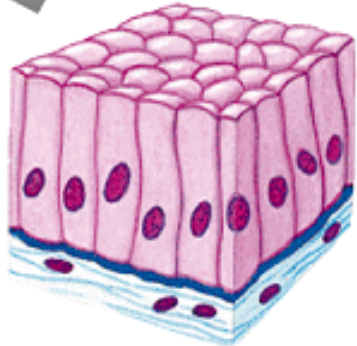


Simple squamous



Stratified columnar

Basement membrane



Simple columnar

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SIMPLE SQUAMOUS

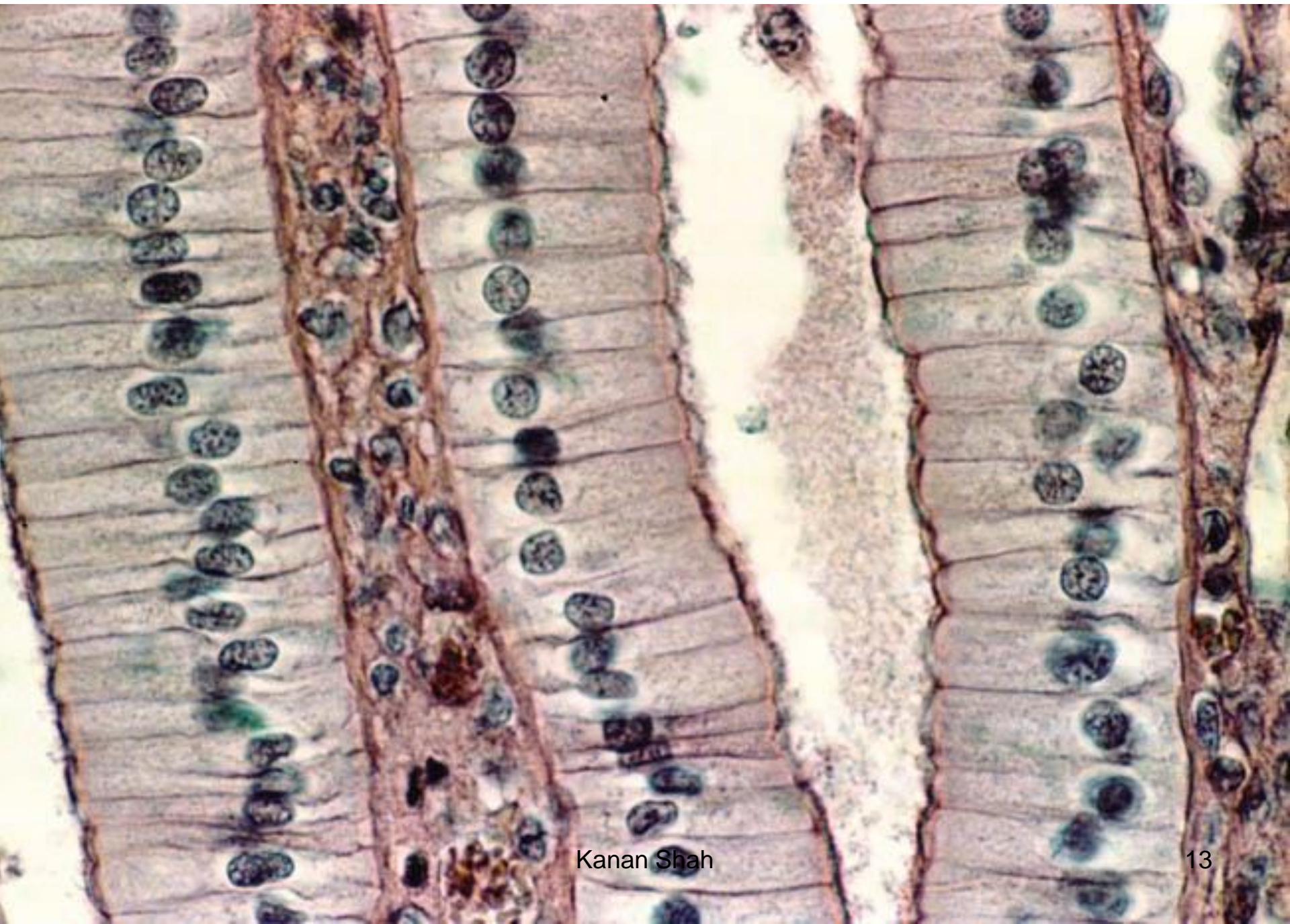


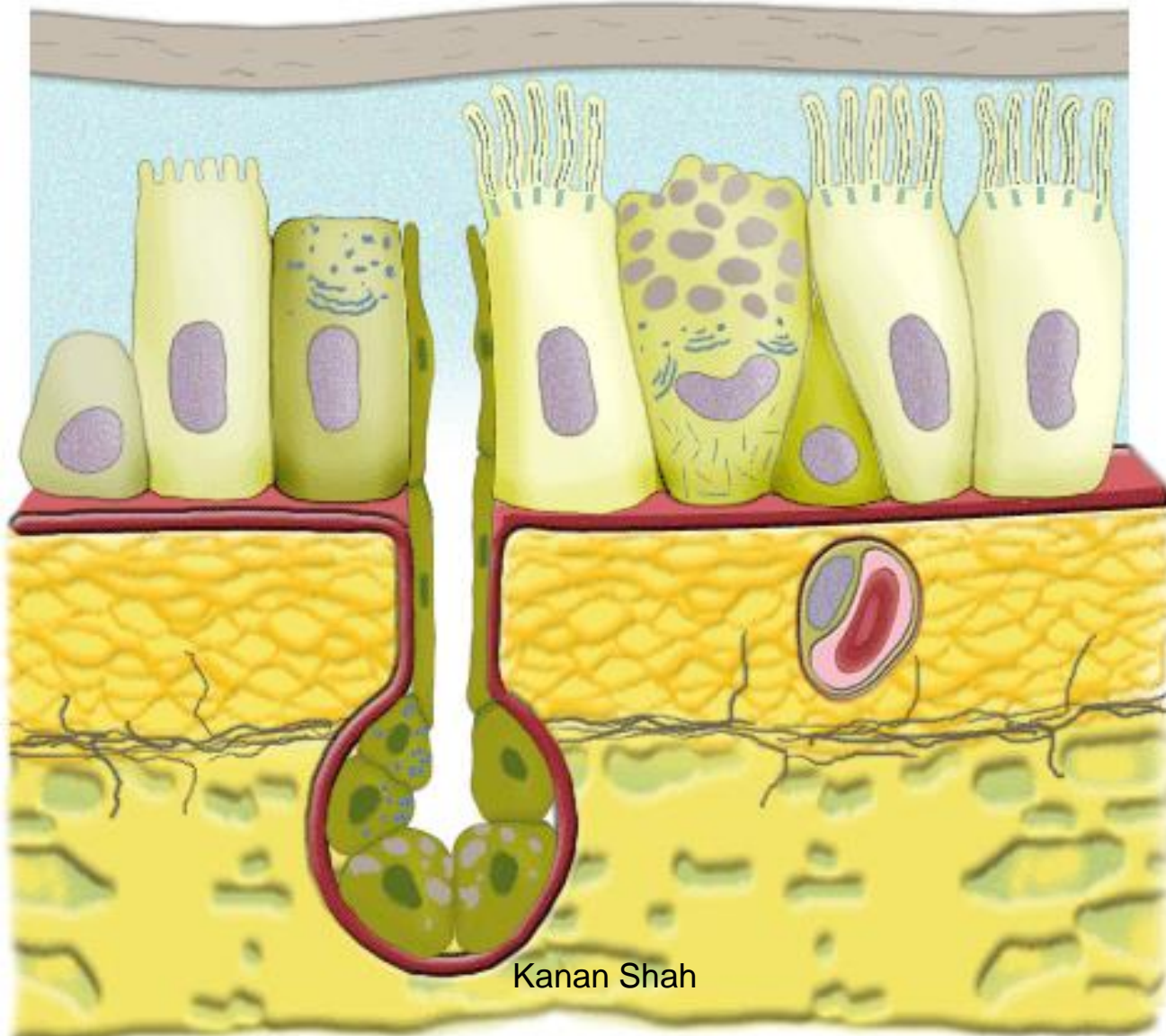
SIMPLE CUBOIDAL



SIMPLE COLUMNER

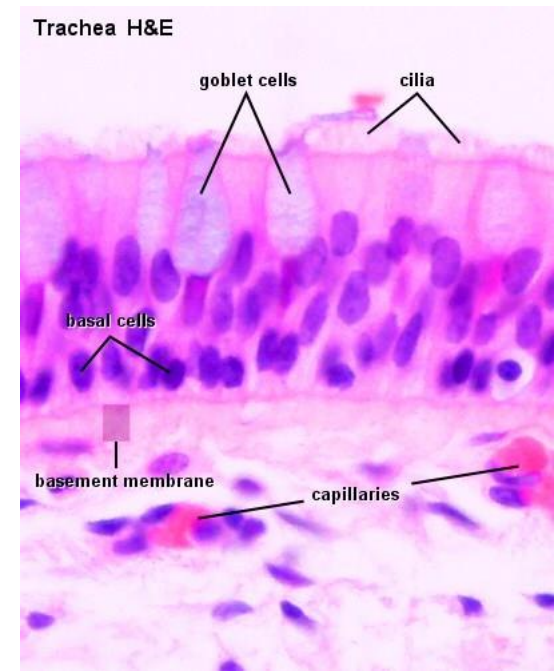
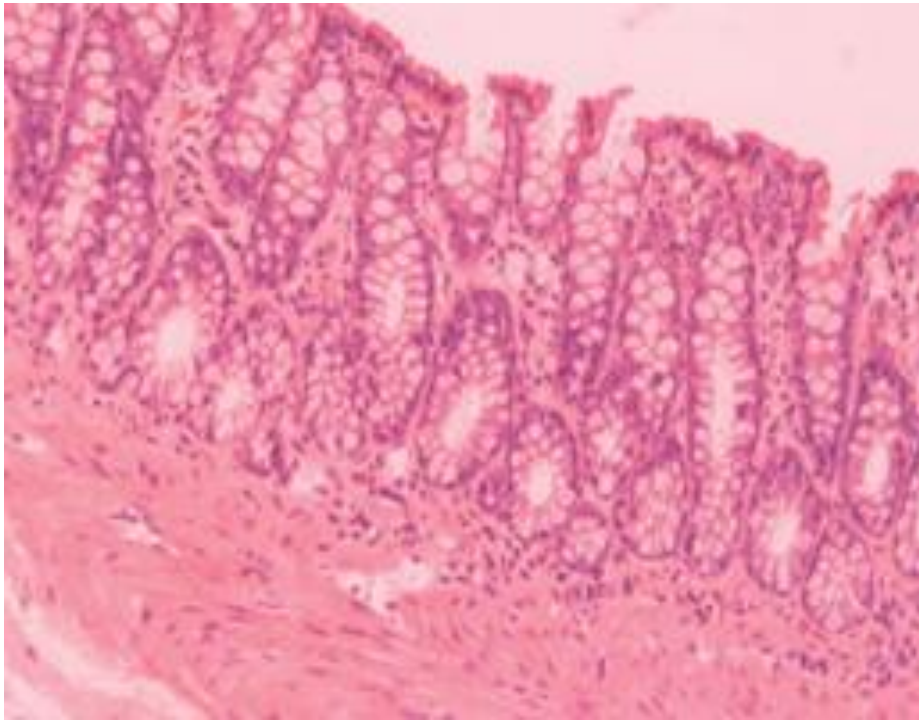


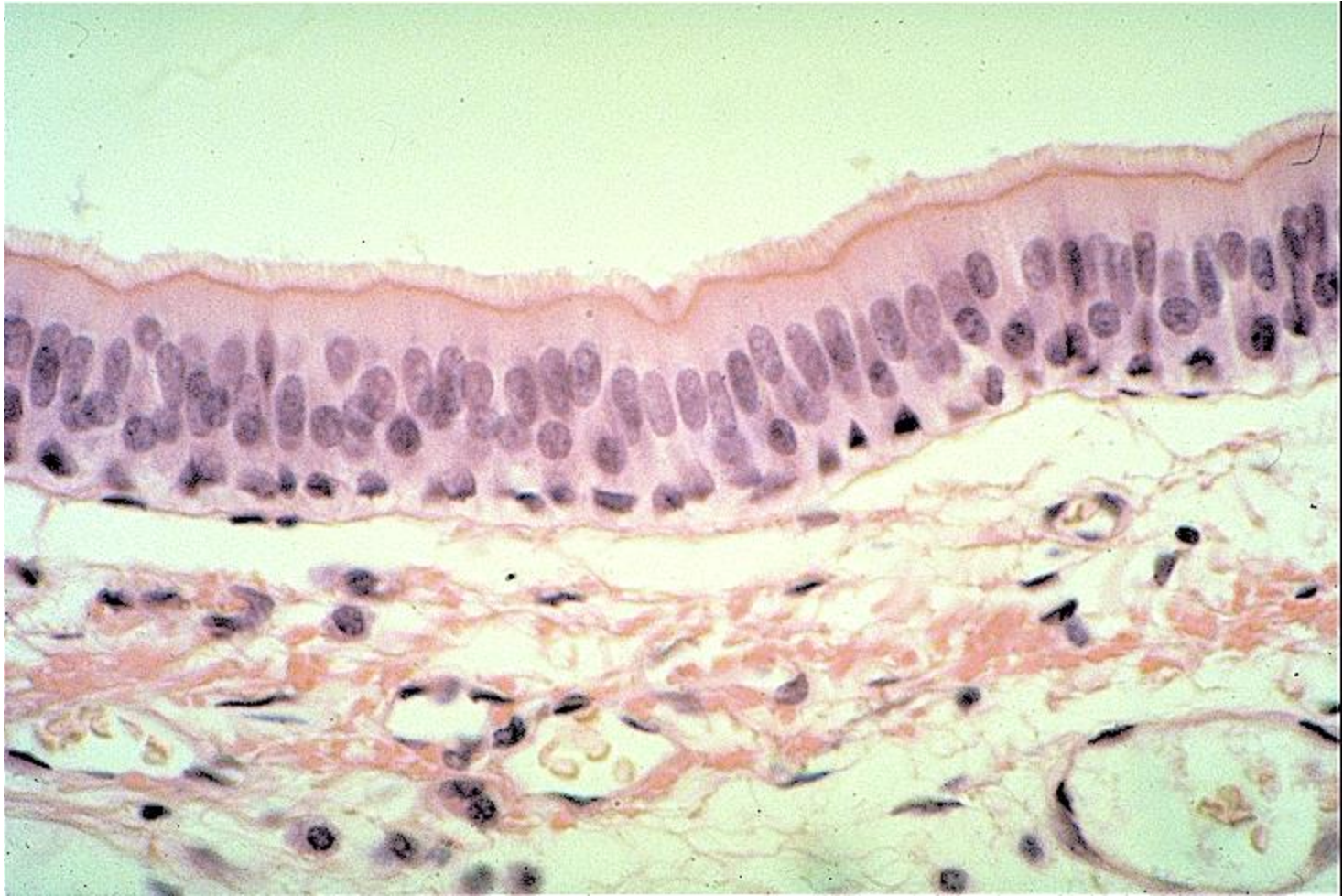




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SECRETORY COLUMNER CELLS



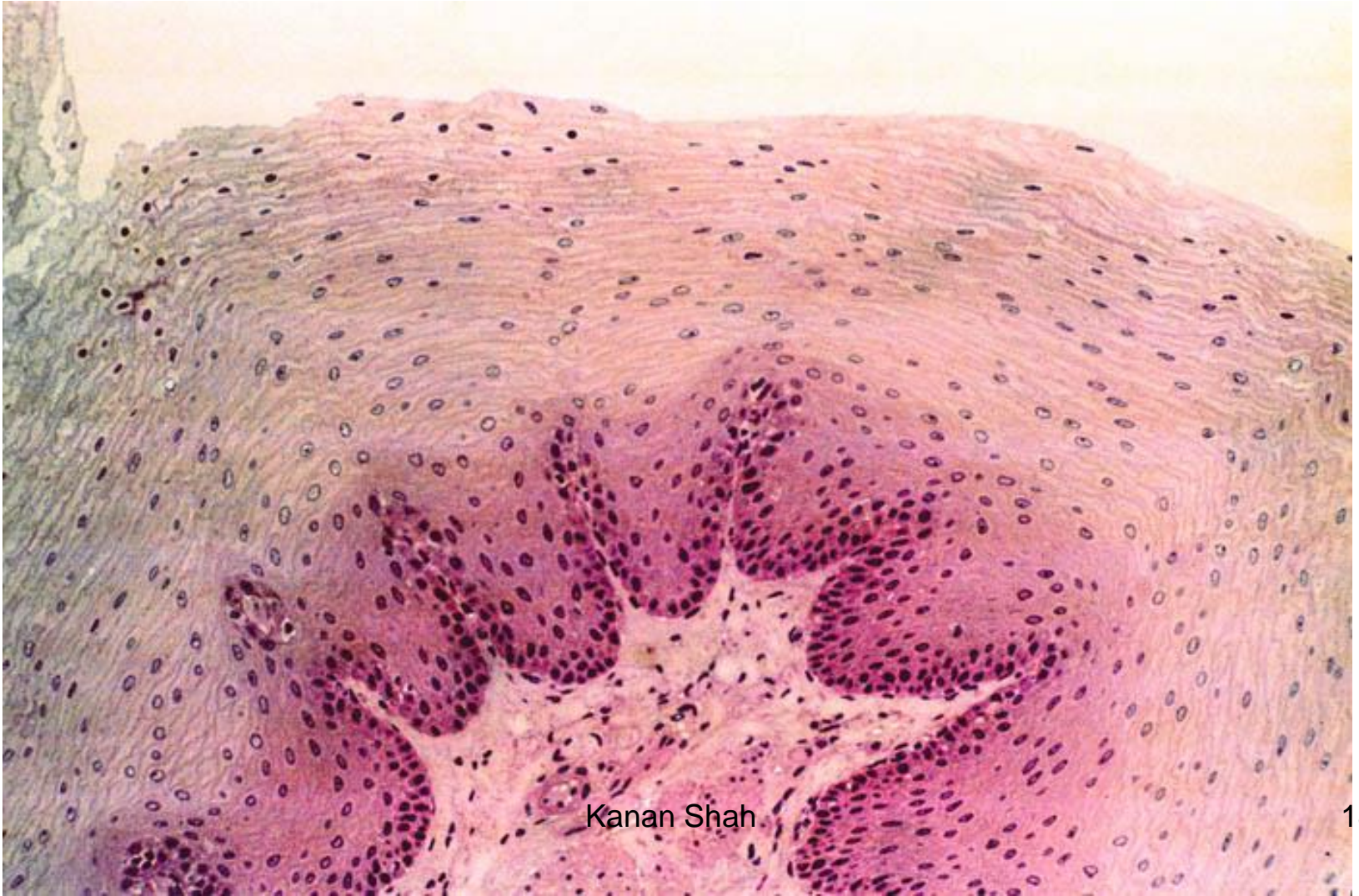


PSEUDOSTRATIFIED EPITHELIUM

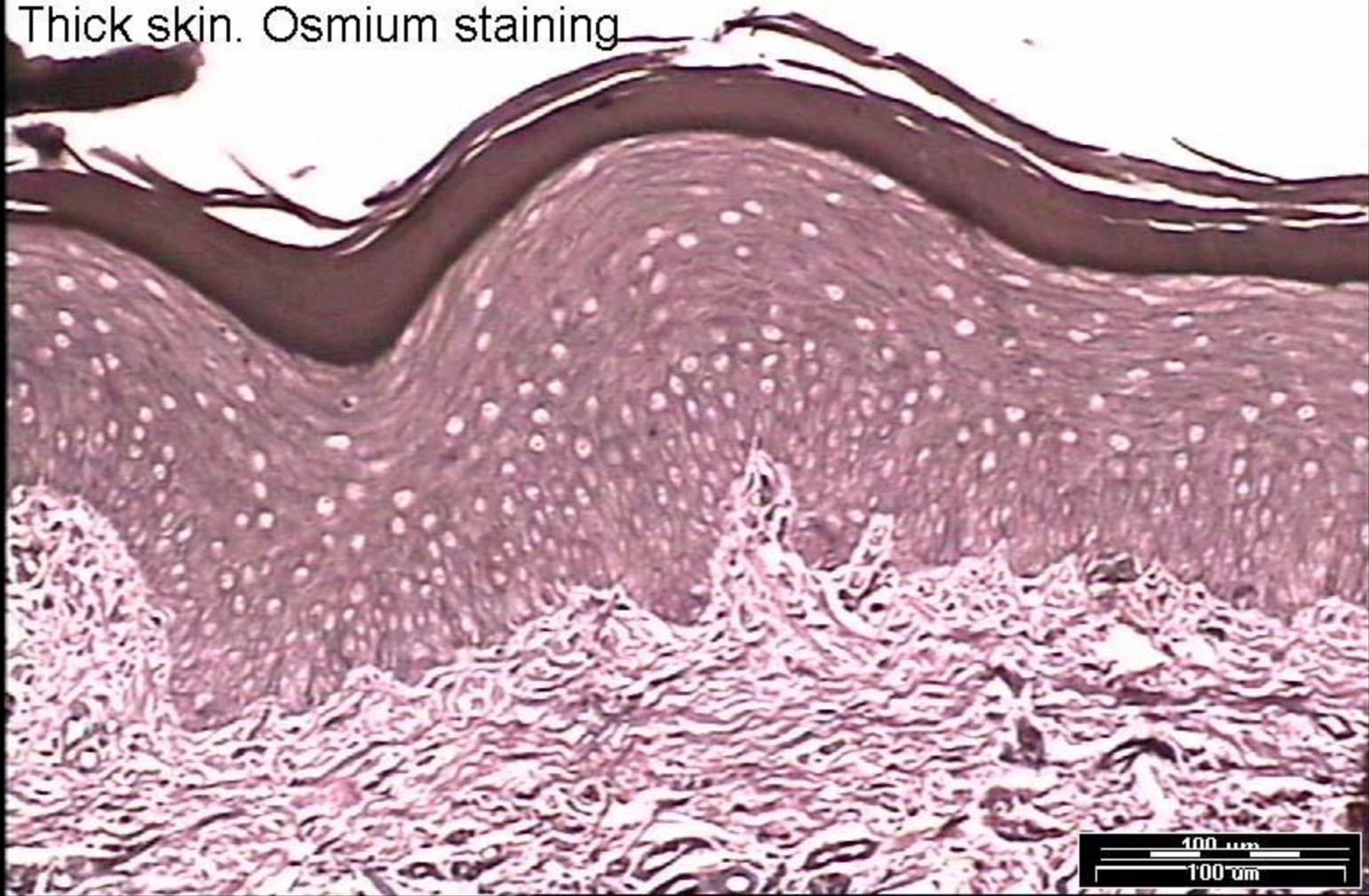


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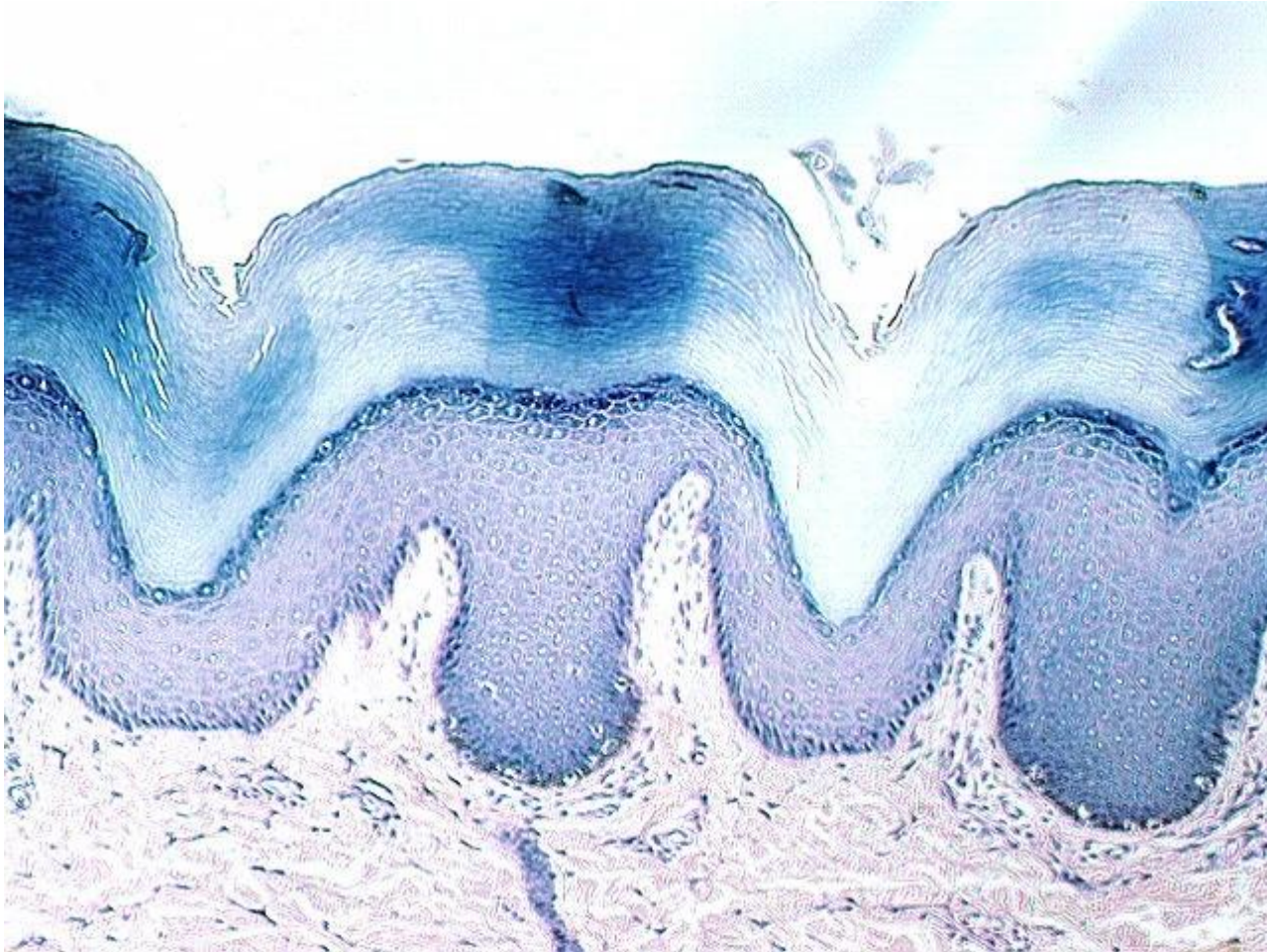
STRATIFIED SQUAMOUS NONKERATINISED



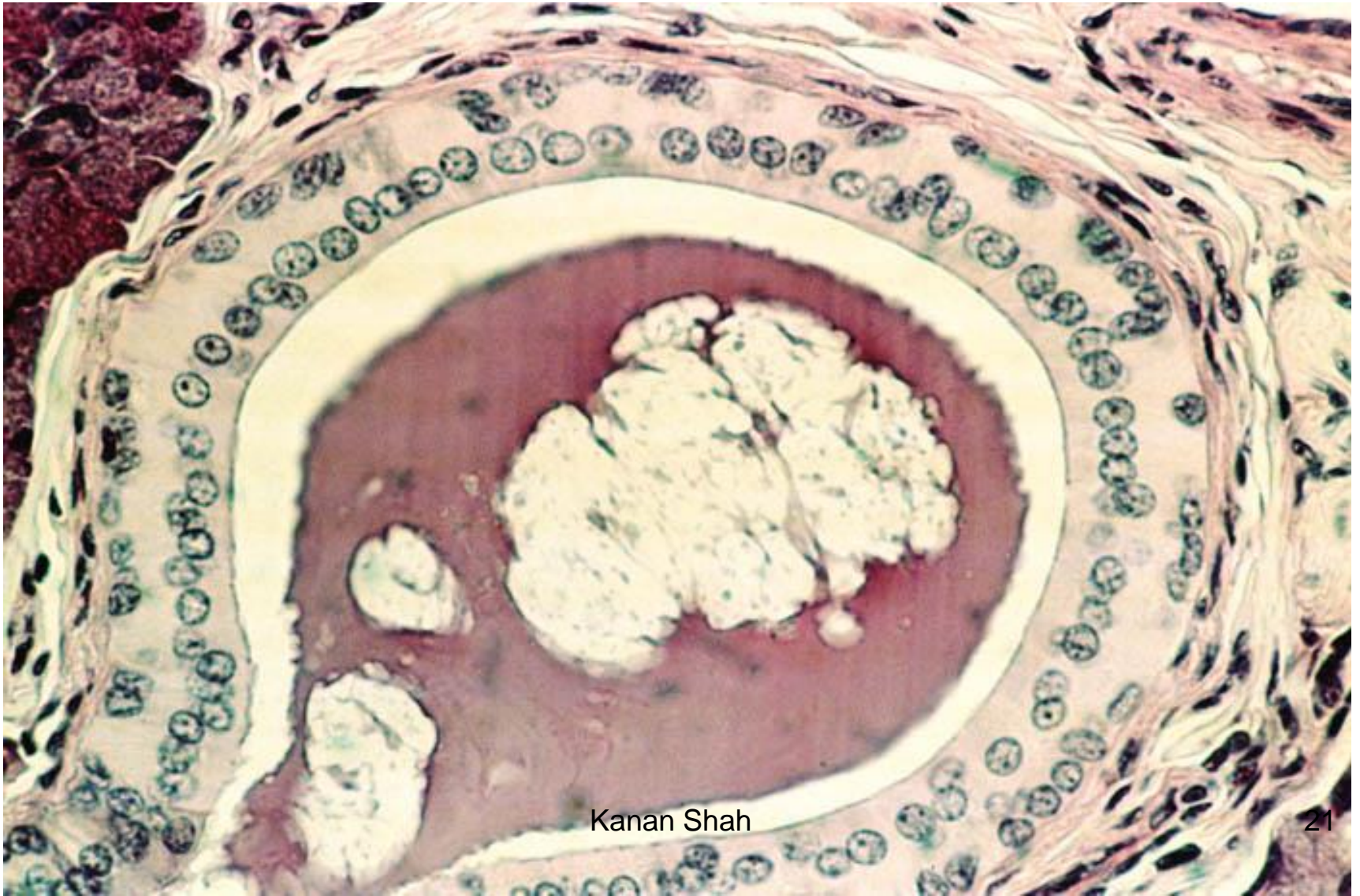
Stratified Squamous Epithelium
with Keratin
Thick skin. Osmium staining



STRATIFIED SQUAMOUS KERATINISED

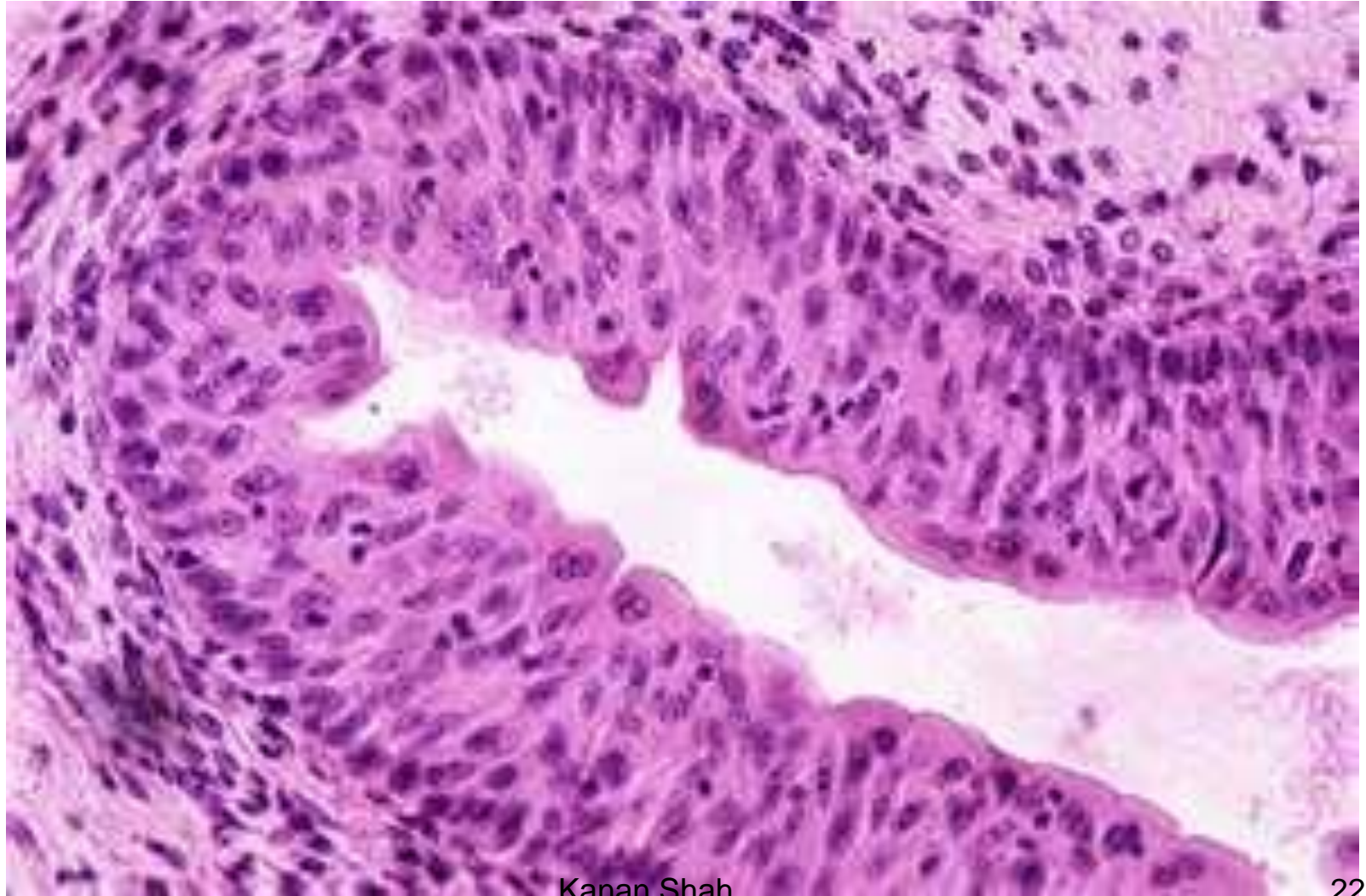


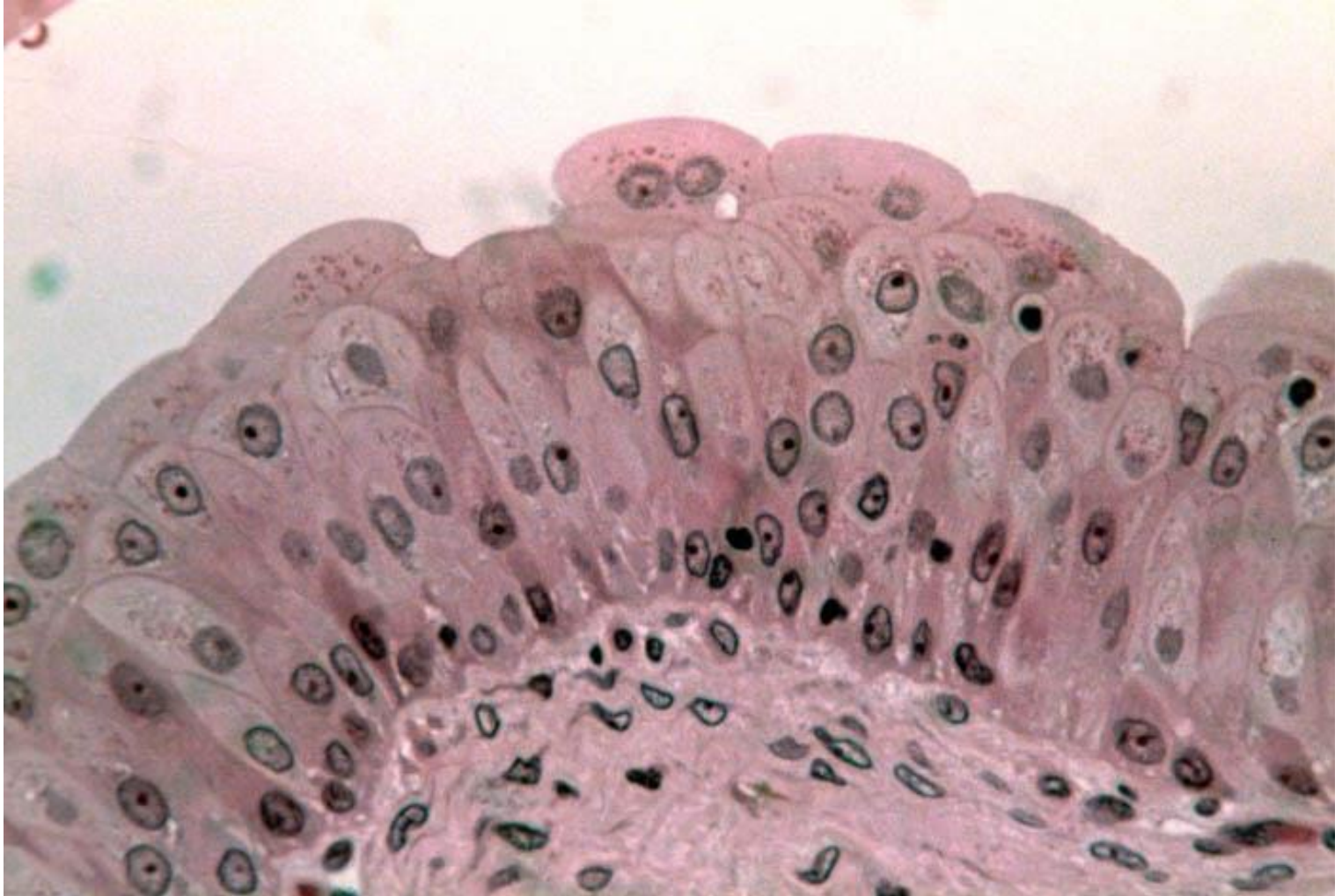
STRATIFIED CUBOIDAL

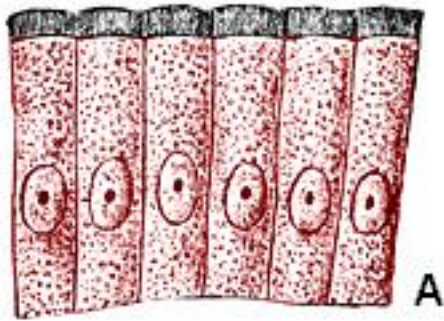


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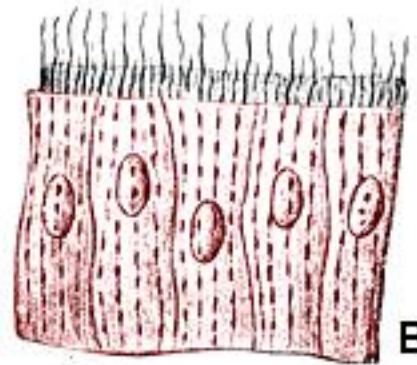
TRANSITIONAL EPITHELIUM



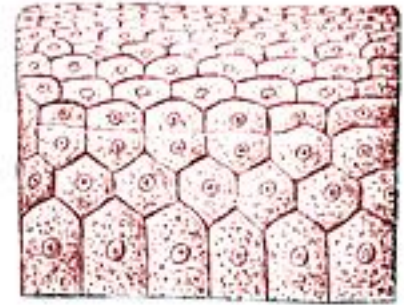




A



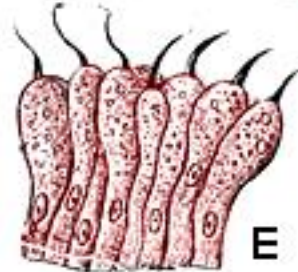
B



C



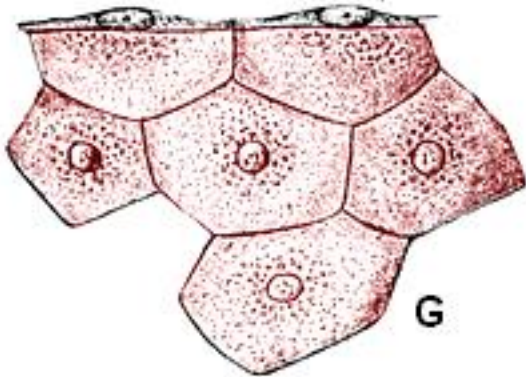
D



E



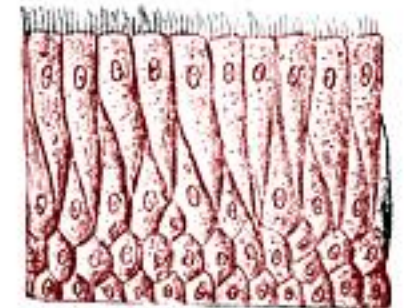
F



G



H



I

Aknowledgement

- Inderbir Singh's Textbook of Human Histology
- Textbook of Histology- Atlas and Practical Guide by JP Gunasegaran
- Difiore's Atlas of Histology
- Images from Google
- Histology Text & Atlas -Brijeshkumar